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Coding Boot Camp
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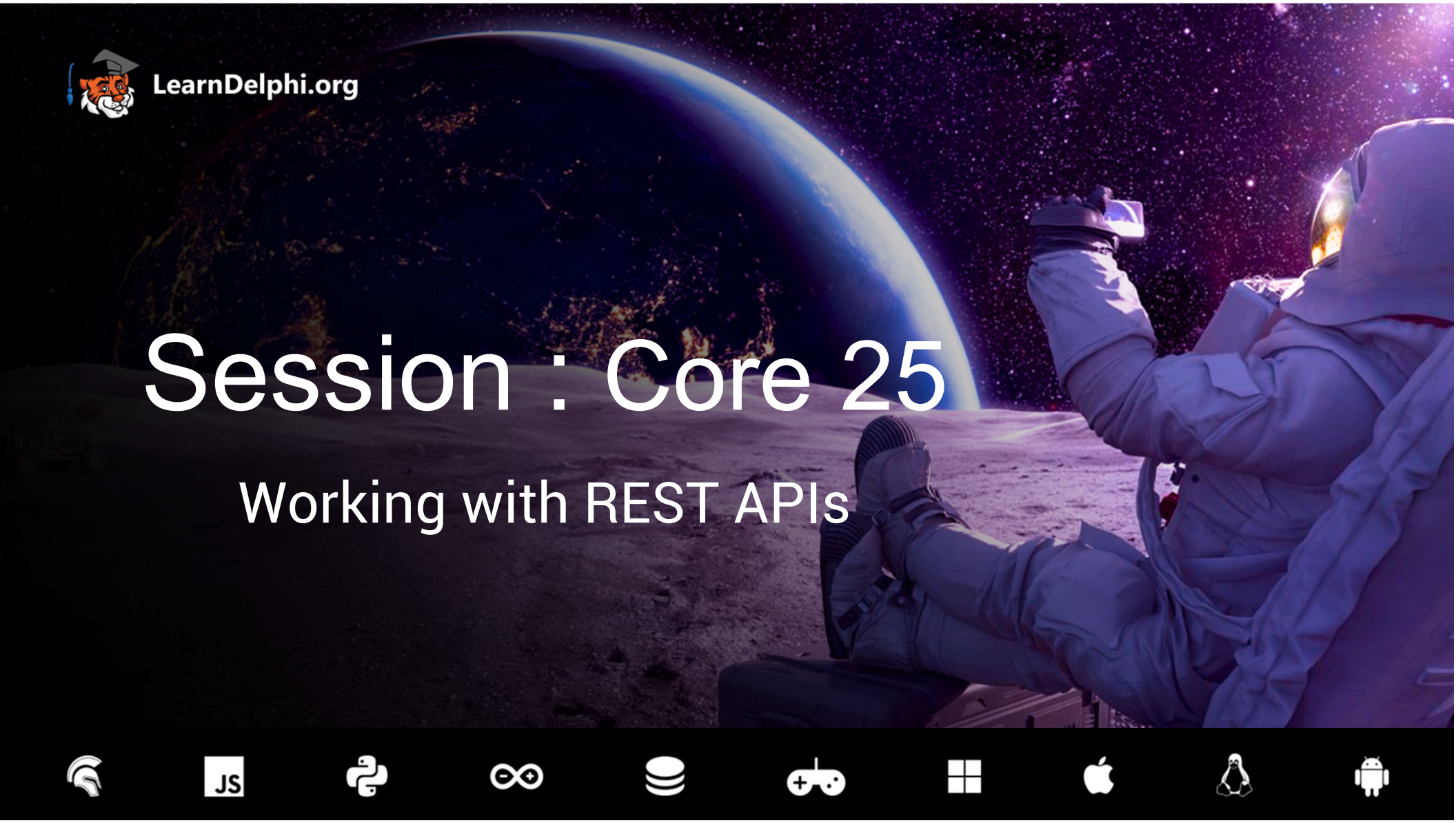
JS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Session : Core 25
Working with REST APIs
JS

About Aubrey Pule Khoza

Tshwane University of Technology
We empower people

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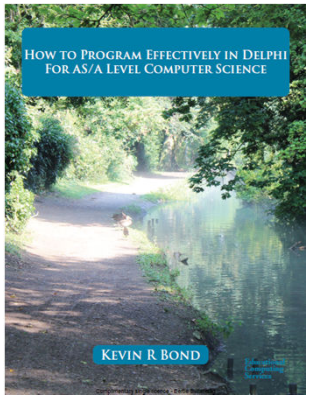
- Lecturer at the department of Computer Science at the Tshwane University of Technology in South Africa
- Passionate about Delphi since Borland Delphi 6
- Software Engineer in various industry projects
- Lives in Pretoria (South Africa)
- Cricket Fan

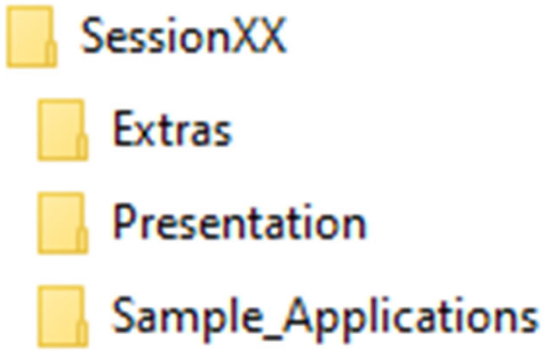
Session outline

- Understanding REST Web Services
- Consuming Web Services
- Web Service Examples
- MusicDelphi Application Tutorial

Textbook reference chapters

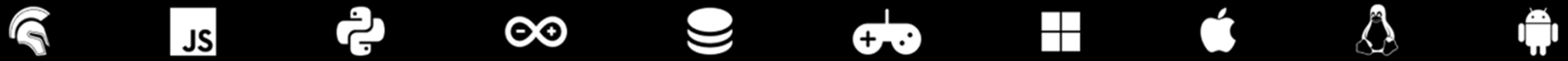


Chapters 68 to 72


SessionXX
Extras
Presentation
Sample_Applications

Web Services

- Web services are application blocks that can be published online and made available to the rest of the world for consumption.
- Instead of reinventing the wheel and recreating the same solution by multiple organizations, these organizations can access and use a prebuilt application component.
- In this Session, we will use the“getartist” web service available online from last-fm which will allow us to get artist information for artists around the world.



Consuming Web Services

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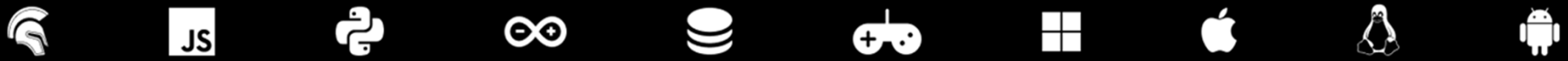
- We consume web services by using the **operations** that they provide

- Delphi makes it easier to consume web service by automatically extracting web service information and creating classes and interfaces that you can use to consume web service methods



Last-FM get-artist Web Service

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last.fm Live Music Charts

artist.getInfo

Get the metadata for an artist. Includes biography, truncated at 300 characters.

Example URLs

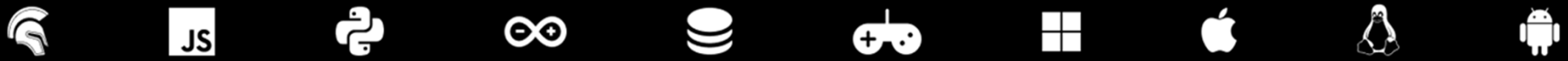
JSON: /2.0/?method=artist.getinfo&artist=Cher&api_key=YOUR_API_KEY&format=json
XML: /2.0/?method=artist.getinfo&artist=Cher&api_key=YOUR_API_KEY

Params

artist (Required (unless mbid)] : The artist name
mbid (Optional) : The musicbrainz id for the artist
lang (Optional) : The language to return the biography in, expressed as an ISO 639 alpha-2 code.
autocorrect[0|1] (Optional) : Transform misspelled artist names into correct artist names, returning the correct version instead. The corrected artist name will be returned in the response.
username (Optional) : The username for the context of the request. If supplied, the user's playcount for this artist is included in the response.
api_key (Required) : A Last.fm API key.

Auth

This service does **not** require authentication.



Last-FM get-artist Web Service

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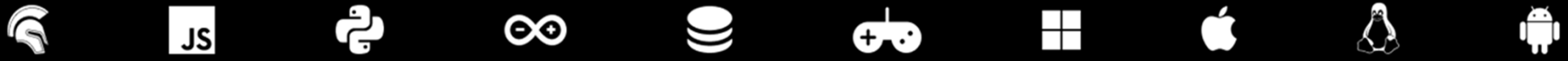
Sample Response

```
<artist>
  <name>Cher</name>
  <mbid>bfcc6d75-a6a5-4bc6-8282-47aec8531818</mbid>
  <url>http://www.last.fm/music/Cher</url>
  <image size="small">http://userserve-ak.last.fm/serve/50/285717.jpg</image>
  <image size="medium">http://userserve-ak.last.fm/serve/85/285717.jpg</image>
  <image size="large">http://userserve-ak.last.fm/serve/160/285717.jpg</image>
  <streamable>1</streamable>
  <stats>
    <listeners>196440</listeners>
    <plays>1599101</plays>
  </stats>
  <similar>
    <artist>
      <name>Madonna</name>
      <url>http://www.last.fm/music/Madonna</url>
      <image size="small">http://userserve-ak.last.fm/serve/50/5112299.jpg</image>
      <image size="medium">http://userserve-ak.last.fm/serve/85/5112299.jpg></image>
      <image size="large">http://userserve-ak.last.fm/serve/160/5112299.jpg</image>
    </artist>
    ...
  </similar>
  <tags>
    <tag>
      <name>pop</name>
      <url>http://www.last.fm/tag/pop</url>
    </tag>
    ...
  </tags>
  <bio>
    <published>Thu, 13 Mar 2008 03:59:18 +0000</published>
    <summary>...</summary>
    <content>...</content>
  </bio>
</artist>
```



String Grid for Music Delphi

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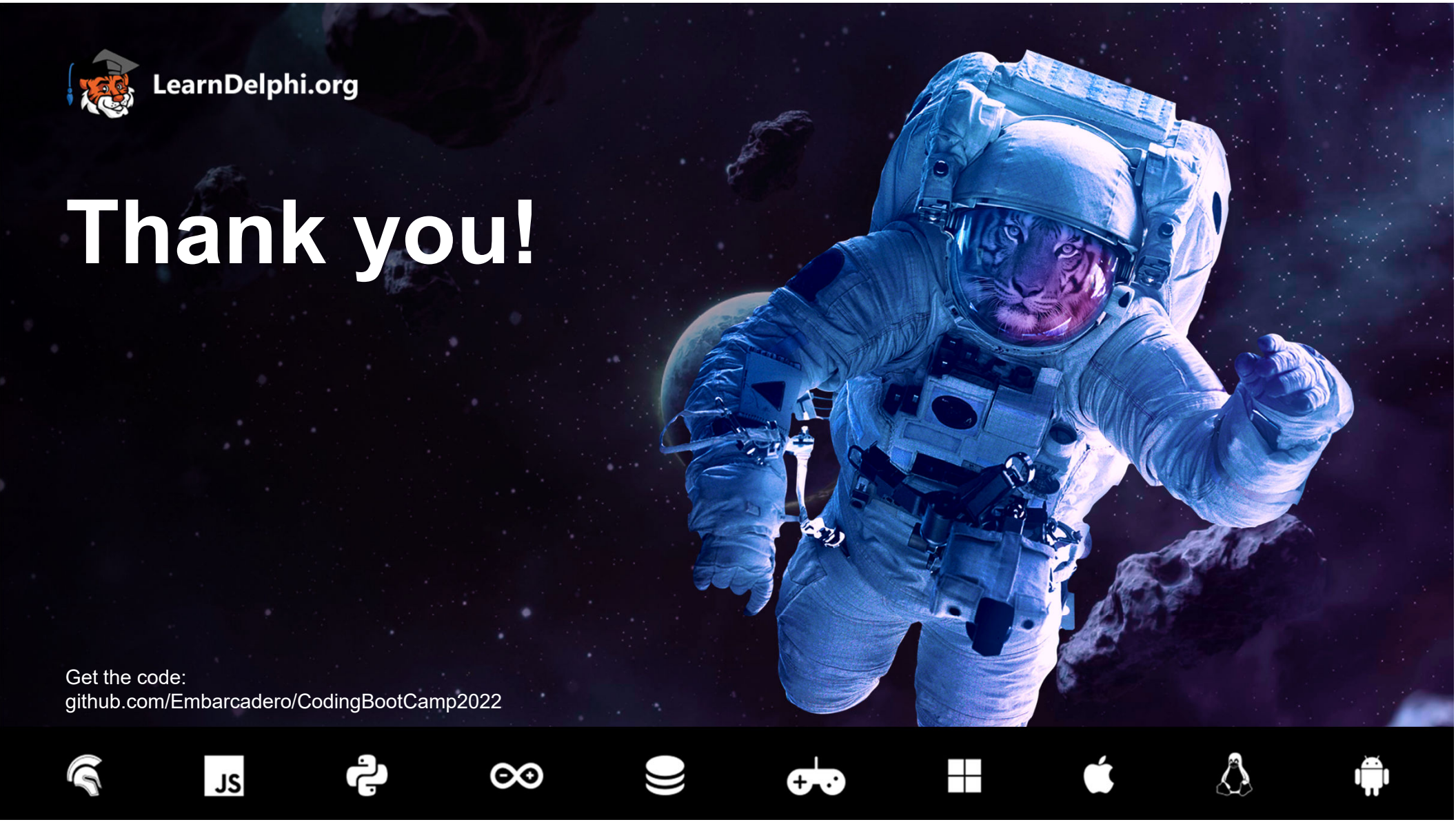
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Thank you!
Get the code:
github.com/Embarcadero/CodingBootCamp2022
JS